Claim Amendments

1-59. (canceled)

60. (new) A method of making a halogen lamp by hot forming, said method comprising the steps of:

(a) producing a melt of molten glass;

(b) passing said molten glass along a tool to form a glass body having an interior and an exterior;

(c) selecting a gas having an oxygen content selected to treat a portion of a glass material of said halogen lamp from an interior surface of said halogen lamp to a desired depth from said interior surface sufficient to decrease darkening by tungsten deposition on said interior surface of said treated portion of said glass material during operation of said halogen lamp;

(d) providing a stream of said gas to contact a portion of said interior of said glass body;

(e) inserting a filament in said glass body to produce said halogen lamp; and

(f) injecting halogen gas into said glass body to produce said halogen lamp.

61. (new) The method according to Claim 60, wherein said

desired depth of step (c) is in the range of 150nm to 2000nm from said interior surface.

62. (new) The method according to Claim 61, wherein at least one of (i) and (ii):

(i) said step of passing said molten glass along a tool to form a glass body comprises passing said molten glass along a tool which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinum-containing alloy; and

made of platinum or a platinum-containing alloy; and

(ii) said step of providing a stream of said gas comprises providing a stream of said gas through a guide structure which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinum-containing alloy; and

made of platinum or a platinum-containing alloy.

63. (new) The method according to Claim 62, wherein:

said step of providing a stream of gas comprises providing a

stream of gas having an oxygen content in the range of one of:

up to 80 vol.%; and

10 to 30 vol.%;

said step of providing a stream of gas comprises providing a stream of gas containing at least one additional gas in addition to oxygen in a predetermined amount, said at least one additional gas being from the group consisting of nitrogen, inert gases, CO_2, SO_2, and H_2O; and

at least one of (A), (B), (C), and (D):

(A) said glass melt has a viscosity in the range of 10^4 to 10^5 dPas;

(B) said glass melt has a temperature of more than one of: 1000°C and 1200°C;

(C) said glass melt is one of: a borosilicate glass melt, a neutral glass melt, and an aluminosilicate glass melt;

(D) said glass melt has one of the following compositions (Da) and (Db) (in wt.% on an oxide basis):

(Da) SiO_2	40-75
Al_2O_3	10-27
B_2O_3	0-15

MgO	0-10
CaO	0-12
SrO	0-12
BaO	0-30
ZnO	0-10
ZrO_2	0-5
$Li_2O + Na_2O + K_2O$	0-7
TiO_2	0-5.5
P_2O_5	0-9.0

as well as optional fining agents and coloring components in conventional quantities;

(Db) SiO_2	60-80
Al_2O_3	2-10
B_2O_3	5-20
MgO	0-8
CaO	0-12
SrO	0-8
BaO	0-12
ZnO	0-10
ZrO_2	0-5

$Li_2O + Na_2O + K_2O$ 2-12

as well as optional fining agents and coloring components in conventional quantities.

64. (new) The halogen lamp made according to the method of Claim 60.

65. (new) A method of making a finished glass object, comprising one of: lamp bulbs, ampoules, bottles, vials, cylinder ampoules, pharmaceutical primary packaging, containers for medical and pharmaceutical products, reagent containers, test tubes, burets, pipettes, titration cylinders, tubular parts for chemical equipment construction, and flat glass, by hot forming, said method comprising the steps of:

(a) producing a melt of molten glass;

(b) forming a glass body;

(c) selecting a gas having an oxygen content of one of: >0 to 20 vol.% and 22 to 100 vol.%, wherein said oxygen content is selected to decrease alkali ions, in a portion of a glass material of said finished glass object, from an exposed surface of said finished glass object to a desired depth of between 150nm to 2000nm from said exposed surface to decrease reactivity of said portion of said

glass material to the desired depth from said exposed surface;

(d) providing a stream of said gas to contact a portion of a surface of said glass body; and

(e) finishing said glass body to form said finished glass object.

66. (new) The method according to Claim 65, wherein at least one of (i) and (ii):

(i) said step of forming a glass body comprises passing said molten glass along a tool which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinum-containing alloy; and

made of platinum or a platinum-containing alloy; and

(ii) said step of providing a stream of said gas comprises providing a stream of said gas through a guide structure which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinum-containing alloy; and

made of platinum or a platinum-containing alloy.

67. (new) The method according to Claim 66, wherein:

said step of providing a stream of gas comprises providing a stream of gas having an oxygen content in the range of one of:

22 to 80 vol.%; and

10 to 20 vol.%;

said step of providing a stream of gas comprises providing a stream of gas containing at least one additional gas in addition to oxygen in a predetermined amount, said at least one additional gas being from the group consisting of nitrogen, inert gases, CO_2, SO_2, and H_2O; and

at least one of (A), (B), (C), and (D):

(A) said glass melt has a viscosity in the range of 10^4 to 10^5 dPas;

(B) said glass melt has a temperature of more than one of: 1000°C and 1200°C;

(C) said glass melt is one of: a borosilicate glass melt, a neutral glass melt, and an aluminosilicate glass melt;

(D) said glass melt has one of the following compositions (Da) and (Db) (in wt.% on an oxide basis):

(Da) SiO_2	40-75
Al_2O_3	10-27

B_2O_3	0-15
MgO	0-10
CaO	0-12
SrO	0-12
BaO	0-30
ZnO	0-10
ZrO_2	0-5
$Li_2O + Na_2O + K_2O$	0-7
TiO_2	0-5.5
P_2O_5	0-9.0

as well as optional fining agents and coloring components in conventional quantities;

(Db) SiO_2	60-80
Al_2O_3	2-10
B_2O_3	5-20
MgO	0-8
CaO	0-12
SrO	0-8
BaO	0-12
ZnO	0-10

ZrO_2	0-5
$Li_2O + Na_2O + K_2O$	2-12

as well as optional fining agents and coloring components in conventional quantities.

68. (new) The finished glass object made according to the method of Claim 65.

69. (new) A method of making a finished glass object, comprising one of: lamp bulbs, ampoules, bottles, vials, cylinder ampoules, pharmaceutical primary packaging, containers for medical and pharmaceutical products, reagent containers, test tubes, burets, pipettes, titration cylinders, and tubular parts for chemical equipment construction, by hot forming, said method comprising the steps of:

(a) producing a melt of molten glass;

(b) forming a glass body;

(c) selecting a gas having an oxygen content selected to decrease alkali ions, in a portion of a glass material of said finished glass object, from an exposed surface of said finished glass object to a desired depth from said exposed surface sufficient to decrease reactivity of said portion of said glass material to the desired depth from said exposed surface;

(d) providing a stream of said gas to contact a portion of a surface of said glass body; and

(e) finishing said glass body to form said finished glass object.

70. (new) The method according to Claim 69, wherein at least one of (i) and (ii):

(i) said step of forming a glass body comprises passing said molten glass along a tool which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinum-containing alloy; and

made of platinum or a platinum-containing alloy; and

(ii) said step of providing a stream of said gas comprises providing a stream of said gas through a guide structure which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinum-containing alloy; and

made of platinum or a platinum-containing alloy.

71. (new) The method according to Claim 70, wherein said desired depth of step (c) is in the range of 150nm to 2000nm from

said exposed surface.

72. (new) The method according to Claim 71, wherein said step of providing a stream of gas comprises providing a stream of gas having an oxygen content in the range of one of:

up to 80 vol.%; and

10 to 30 vol.%.

73. (new) The method according to Claim 72, wherein:

said step of providing a stream of gas comprises providing a stream of gas containing at least one additional gas in addition to oxygen in a predetermined amount, said at least one additional gas being from the group consisting of nitrogen, inert gases, CO_2, SO_2, and H_2O; and

wherein at least one of (A), (B), (C), and (D):

(A) said glass melt has a viscosity in the range of 10^4 to 10^5 dPas;

(B) said glass melt has a temperature of more than one of: 1000°C and 1200°C;

(C) said glass melt is one of: a borosilicate glass melt, a neutral glass melt, and an aluminosilicate glass melt;

(D) said glass melt has one of the following compositions

(Da) and (Db) (in wt.% on an oxide basis):

(Da) SiO_2	40-75
Al_2O_3	10-27
B_2O_3	0-15
MgO	0-10
CaO	0-12
SrO	0-12
BaO	0-30
ZnO	0-10
ZrO_2	0-5
$Li_2O + Na_2O + K_2O$	0-7
TiO_2	0-5.5
P_2O_5	0-9.0

as well as optional fining agents and coloring components in conventional quantities;

(Db) SiO_2	60-80
Al_2O_3	2-10
B_2O_3	5-20
MgO	0-8
CaO	0-12

SrO	0-8
BaO	0-12
ZnO	0-10
ZrO_2	0-5
$Li_2O + Na_2O + K_2O$	2-12

as well as optional fining agents and coloring components in conventional quantities.

74. (new) The glass object made according to the method of Claim 69.

75. (new) A method of making a finished glass object comprising flat glass, by hot forming, said method comprising the steps of:

(a) producing a melt of molten glass;

(b) forming a glass body;

(c) selecting a gas consisting of at least one member of the group consisting of: oxygen, nitrogen, inert gases, CO_2, SO_2, and H_2O, and having an oxygen content selected to treat a portion of a glass material of said finished glass object, from an exposed surface of said finished glass object to a desired depth from said exposed surface sufficient to decrease reactivity of said portion of said glass material to the desired depth from said exposed surface; and

(d) providing a stream of said gas to contact a portion of a surface of said glass body.

76. (new) The method according to Claim 75, wherein said desired depth of step (c) is in the range of 150nm to 2000nm from said exposed surface.

77. (new) The method according to Claim 76, wherein at least one of (i) and (ii):

(i) said step of forming a glass body comprises passing said molten glass along a tool which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinum-containing alloy; and

made of platinum or a platinum-containing alloy; and

(ii) said step of providing a stream of said gas comprises providing a stream of said gas through a guide structure which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinum-containing alloy; and

made of platinum or a platinum-containing alloy.

78. (new) The method according to Claim 77, wherein:

said step of providing a stream of gas comprises providing a stream of gas having an oxygen content in the range of one of:

up to 80 vol.%; and

10 to 30 vol.%; and

at least one of (A), (B), (C), and (D):

(A) said glass melt has a viscosity in the range of 10^4 to 10^5 dPas;

(B) said glass melt has a temperature of more than one of: 1000°C and 1200°C;

(C) said glass melt is one of: a borosilicate glass melt, a neutral glass melt, and an aluminosilicate glass melt;

(D) said glass melt has one of the following compositions (Da) and (Db) (in wt.% on an oxide basis):

(Da) SiO_2	40-75
Al_2O_3	10-27
B_2O_3	0-15
MgO	0-10
CaO	0-12
SrO	0-12

BaO	0-30
ZnO	0-10
ZrO_2	0-5
$Li_2O + Na_2O + K_2O$	0-7
TiO_2	0-5.5
P_2O_5	0-9.0

as well as optional fining agents and coloring components in conventional quantities;

(Db) SiO_2	60-80
Al_2O_3	2-10
B_2O_3	5-20
MgO	0-8
CaO	0-12
SrO	0-8
BaO	0-12
ZnO	0-10
ZrO_2	0-5
$Li_2O + Na_2O + K_2O$	2-12

as well as optional fining agents and coloring components in conventional quantities.

79. (new) The glass object made according to the method of Claim 75.